

AMENDMENT

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the subject application:

Listing of Claims:

1. (Currently Amended) A data center, comprising:
at least one modular computing module, each including:
a shipping container configured for transport via a transport infrastructure; and
a plurality of computing systems mounted within the shipping container and
configured to be shipped and operated within the shipping container; and
~~at least one of:~~
~~an interconnecting module to interconnect a plurality of the modular computing~~
~~modules, the interconnecting module including another of said shipping~~
~~container;~~
~~a power generating module for generating power for the at least one modular~~
~~computing module, the power generating module including another of said~~
~~shipping container;~~
a cooling module of a temperature control system, the cooling module including
another of said shipping container, the cooling module being separate from the
computing systems of the at least one modular computing module;
~~a power and cooling module for generating power and for providing cooling for~~
~~the temperature control system, power and cooling module including~~
~~another of said shipping container; and~~
~~a cooling tower in communication with the modular computing module, the~~
~~cooling tower comprising at least one of an evaporative cooler and a~~
~~condenser portion of the temperature control system wherein the~~
~~temperature control system is a direct expansion refrigeration system.~~

2. (Currently Amended) The data center of claim 1, further comprising [[a]] the
temperature control system for maintaining a predetermined air temperature surrounding the
computing systems.

3. (Previously Presented) The data center of claim 1, in which the computing systems are arranged to define an access way within the corresponding shipping container to provide human access to the computing systems.

4. (Canceled)

5. (Original) The data center of claim 1, in which the computing systems are mounted within mounting structures, each mounting structure being one of a rack mounting structure and a shelf mounting structure.

6. (Previously Presented) The data center of claim 1, wherein the computing systems are mounted within mounting structures that are an integral structural component of the shipping container.

7. (Previously Presented) The data center of claim 1, in which the modular computing module further includes a plurality of computing system enclosures for enclosing and mounting the computing systems within the enclosures, the computing system enclosures being mounted within the shipping container, the data center further comprising a temperature control subsystem for each enclosure to provide independent temperature control within the enclosure.

8. (Previously Presented) The data center of claim 7, in which the temperature control subsystem of each enclosure includes a blower and an evaporator coil and in which the blower includes a blower motor and blower blades mounted external and internal to the shipping container, respectively.

9. (Original) The data center of claim 7, in which each computing system enclosure defines a first delivery plenum and a second return plenum in thermal communication with the corresponding temperature control subsystem, the first and second plenums being in thermal communication with the computing system contained within the corresponding enclosure.

10. (Original) The data center of claim 9, in which each computing system enclosure includes a gas-side economizer in thermal communication with the corresponding temperature control subsystem.

11. (Original) The data center of claim 7, in which each enclosure includes a door for access to the computing systems contained in the enclosure.

12. (Previously Presented) The data center of claim 1, in which the shipping container has a height selected from approximately 8 feet 6 inches and 9 feet 6 inches and a width of approximately 8 feet.

13. (Previously Presented) A method for deploying a data center, comprising:
building at least one modular computing module at a first site, each including:
a shipping container configured for transport via a transport infrastructure; and
a plurality of computing systems mounted within the shipping container and
configured to be shipped to and operated within the shipping container at a
data center site, ~~the building including at least one of:~~ and
~~building an interconnecting module to interconnect a plurality of the modular
computing modules, the interconnecting module including another of said
shipping container;~~
~~building a power generating module for generating power for the at least one
modular computing module, the power generating module including another
of said shipping container;~~
building a cooling module of a temperature control system, the cooling module
including another of said shipping container configured to be in communication
with the at least one modular computing module, the cooling module being
separate from the computing systems of the at least one modular computing
module;
~~building a power and cooling module for generating power and for providing
cooling for the temperature control system, power and cooling module
including another of said shipping container; and~~

~~building a cooling tower containing a condenser in fluid communication with the power and cooling module;~~
transporting the at least one modular computing module and the cooling module to the data center site different from the first site via the transport infrastructure; and connecting at least one resource connection to the at least one modular computing module.

14. (Original) The method of claim 13, in which at least one resource connection is selected from the group consisting of electricity, natural gas, water, and Internet access.

15. (Original) The method of claim 13, further including:
testing the computing systems of each modular computing module at the first site.

16. (Previously Presented) The method of claim 13, in which the transporting via the transport infrastructure includes transporting via at least one of air, road, rail, and vessel.

17. (Previously Presented) The method of claim 13, in which the computing systems are arranged to define an access way within the corresponding shipping container to provide human access to the computing systems.

18. (Canceled)

19. (Original) The method of claim 13, in which the building includes mounting the computing systems within mounting structures, each computing system being one of rack mounted and shelf mounted within the corresponding mounting structure.

20. (Previously Presented) The method of claim 13, in which the building includes mounting the computing systems within mounting structures that are an integral structural component of the shipping container.

21. (Previously Presented) The method of claim 13, in which the building includes enclosing and mounting the plurality of computing systems within computing system enclosures, the computing system enclosures being mounted within the shipping container.

22. (Original) The method of claim 21, in which the building includes installing a temperature control subsystem for each computing system enclosure configured to independently control the temperature within the corresponding enclosure.

23. (Previously Presented) The method of claim 22, in which the temperature control subsystem of each enclosure includes a blower and in which the building includes mounting a blower motor and blower blades of the blower external and internal to the shipping container, respectively.

24. (Original) The method of claim 22, in which each computing system enclosure defines a first delivery plenum and a second return plenum in thermal communication with the corresponding temperature control subsystem, the first and second plenums being in thermal communication with the computing system contained within the corresponding enclosure.

25. (Original) The method of claim 22, in which the building includes installing a gas-side economizer for each computing system enclosure, the gas-side economizer being in thermal communication with the corresponding temperature control subsystem of the computing system enclosure.

26. (Original) The method of claim 21, in which each enclosure includes a door for access to the computing systems contained in the enclosure.

27. (Previously Presented) The method of claim 13, in which the shipping container has a height selected from approximately 8 feet 6 inches and 9 feet 6 inches and a width of approximately 8 feet.

28. (Previously Presented) The method of claim 13, further including servicing the computing systems by one of:

performing on-site maintenance at the data center site; and
performing off-site maintenance by transporting the at least one modular computing module to a servicing site different from the data center site via the transport infrastructure.

29. (Currently Amended) A data center, comprising:

a modular computing module, including:

a shipping container configured for transport via a transport infrastructure with respect to at least one of height, length, width, weight, and lifting points of the container;

a plurality of computing systems mounted within the shipping container and configured to be shipped and operated within the shipping container;

a power distribution unit configured to distribute power from a power source to the plurality of computing systems; and

a network interface configured to interface between an Internet access connection and the computing systems;

a temperature control system for maintaining a predetermined air temperature surrounding the computing systems; and

~~at least one of:~~

~~an interconnecting module to interconnect a plurality of the modular computing modules, the interconnecting module including another of said shipping container;~~

~~a power generating module for generating power for the at least one modular computing module, the power generating module including another of said shipping container;~~

a cooling module of the temperature control system, the cooling module including another of said shipping container, the cooling module being separate from the computing systems of the modular computing module;

~~a power and cooling module for generating power and for providing cooling for the temperature control system, power and cooling module including another of said shipping container; and~~

~~a cooling tower containing a condenser in fluid communication with the power and cooling module.~~

30. (Canceled)

31. (Previously Presented) The data center of claim 29, in which the modular computing module further includes a plurality of computing system enclosures for enclosing and mounting the computing systems within the enclosures, the computing system enclosures being mounted within the shipping container, and in which the temperature control system includes a temperature control subsystem for each enclosure to provide independent temperature control within the enclosure.

32. (Original) The data center of claim 31, in which each computing system enclosure defines a first delivery plenum and a second return plenum in thermal communication with the corresponding temperature control subsystem, the first and second plenums being in thermal communication with the computing system contained within the corresponding enclosure.

33. (Original) The data center of claim 32, in which each of the first and second plenums is tapered along its length.

34. (Original) The data center of claim 31, in which each computing system enclosure includes a gas-side economizer in thermal communication with the corresponding temperature control subsystem.

35. (Previously Presented) The data center of claim 29, in which the shipping container has a height selected from approximately 8 feet 6 inches and 9 feet 6 inches and a width of approximately 8 feet.

36. (Previously Presented) The data center of claim 1, wherein the transport infrastructure is an intermodal transport infrastructure and wherein each shipping container is configured for transport via the intermodal transport infrastructure.

37. (Previously Presented) The data center of claim 36, wherein each shipping container is configured in accordance with International Organization for Standardization (ISO) container manufacturing standards for transport via the intermodal transport infrastructure.

38. (Previously Presented) The method of claim 13, wherein the transport infrastructure is an intermodal transport infrastructure and wherein each shipping container is configured for transport via the intermodal transport infrastructure.

39. (Previously Presented) The method of claim 38, wherein each shipping container is configured in accordance with International Organization for Standardization (ISO) container manufacturing standards for transport via the intermodal transport infrastructure.

40. (Previously Presented) The data center of claim 29, wherein the transport infrastructure is an intermodal transport infrastructure and wherein each shipping container is configured for transport via the intermodal transport infrastructure.

41. (Previously Presented) The data center of claim 40, wherein each shipping container is configured in accordance with International Organization for Standardization (ISO) container manufacturing standards for transport via the intermodal transport infrastructure.

42. (New) The data center of claim 1, further comprising at least one of:
an interconnecting module to interconnect a plurality of the modular computing modules, the interconnecting module including another of said intermodal shipping container;
a power generating module for generating power for the at least one modular computing module, the power generating module including another of said intermodal shipping container;
a power and cooling module integrated with the cooling module for generating power and for providing cooling for the temperature control system, power and cooling module including another of said intermodal shipping container; and

a cooling tower in communication with the modular computing module, the cooling tower comprising at least one of an evaporative cooler and a condenser portion of the temperature control system wherein the temperature control system is a direct expansion refrigeration system.

43. (New) The method of claim 13, in which the building further includes at least one of:

building an interconnecting module to interconnect a plurality of the modular computing modules, the interconnecting module including another of said intermodal shipping container;

building a power generating module for generating power for the at least one modular computing module, the power generating module including another of said intermodal shipping container;

building a power and cooling module integrated with the cooling module for generating power and for providing cooling for the temperature control system, power and cooling module including another of said intermodal shipping container; and

building a cooling tower containing a condenser in fluid communication with the power and cooling module.

44. (New) The data center of claim 29, further comprising at least one of:

an interconnecting module to interconnect a plurality of the modular computing modules, the interconnecting module including another of said intermodal shipping container;

a power generating module for generating power for the at least one modular computing module, the power generating module including another of said intermodal shipping container;

a power and cooling module integrated with the cooling module for generating power and for providing cooling for the temperature control system, power and cooling module including another of said intermodal shipping container; and

a cooling tower containing a condenser in fluid communication with the power and cooling module.